

WHAT IS CLAIMED IS:

- 1           1.       In a relationship between a telecommunication provider and a plurality  
2       of subscribers, a device for determining an appropriate set of addresses to which to distribute  
3       an alert, the device comprising:
  - 4               at least one interface member in communication with a communication  
5       network;
  - 6               a processor in communication with the at least one interface member; and  
7               a storage medium in communication with the processor, the storage medium  
8       comprising instructions executable by the processor to:
    - 9                       maintain a directory of alert gateways, the directory comprising a  
10       plurality of directory entries, each directory entry being associated with a particular  
11       alert gateway and comprising at least one gateway characteristic associated with that  
12       alert gateway, the gateway characteristic including information to enable the alert  
13       distribution device to determine whether a given alert should be transmitted to the  
14       alert gateway;
    - 15                       maintain a distribution address associated with each of the alert  
16       gateways, the distribution address for a particular alert gateway providing sufficient  
17       identifying information about that alert gateway to allow an alert to be transmitted to  
18       the alert gateway;
    - 19                       associate the at least one gateway characteristic for a particular alert  
20       gateway with the distribution address for that particular alert gateway;
    - 21                       receive an alert via the at least one interface member, the alert having  
22       associated information about the alert;
    - 23                       identify, based on the information about the alert, a set of selection  
24       criteria for determining which of the plurality of alert gateways should receive the  
25       alert;
    - 26                       search the directory for at least one directory entry comprising a  
27       gateway characteristic corresponding to the identified selection criteria; and
    - 28                       identify, based on the search, a set of at least one distribution address  
29       that should receive the alert, each member of the set of distribution addresses being  
30       associated with a directory entry comprising a gateway characteristic that corresponds  
31       to the identified selection criteria.

1                   2.       The device of claim 1, wherein the at least one gateway characteristic  
2   associated with each of the alert gateways comprises information about the geographic  
3   location of the alert gateway.

1                   3.       The device of claim 2, wherein the information about the alert  
2   comprises geographic information about a geographic area to which the alert pertains, such  
3   that subscribers outside the geographic area would be relatively unlikely to be interested in  
4   receiving the alert.

1                   4.       The device of claim 1, wherein the directory entry for each alert  
2   gateway comprises information about a distribution address for that alert gateway, and  
3   wherein maintaining a distribution address associated with each of the alert gateways  
4   comprises maintaining the information about the distribution address.

1                   5.       The device of claim 1, wherein the storage medium comprises a first  
2   database, the first database comprising the directory of alert gateways.

1                   6.       The device of claim 5, wherein storage medium comprises a second  
2   database, the second database comprising the distribution addresses associated with each of  
3   the alert gateways.

1                   7.       The device of claim 1, wherein the at least one gateway characteristic  
2   associated with an alert gateway comprises information selected from the group consisting of  
3   the area code in which the alert gateway is located, the ZIP code in which the alert gateway is  
4   located, the latitude and longitude coordinates of the alert gateway, the Global Positioning  
5   System coordinates of the alert gateway, demographic information about a subscriber  
6   associated with the alert gateway, and information about subscriber preferences held by a  
7   subscriber associated with the alert gateway.

1                   8.       The device of claim 1, wherein the alert comprises urgent public  
2   information.

1                   9.       The device of claim 8, wherein the urgent public information is  
2   selected from a group consisting of an Emergency Alert System transmission, an Amber  
3   Alert, a severe weather notification, and a Homeland Security Advisory notification.

1                   10.     The device of claim 1, wherein the information about the alert is  
2 incorporated within the alert.

1                   11.     The device of claim 1, wherein the alert information about the alert is  
2 additional to the alert.

1                   12.     The device of claim 1, wherein the storage medium comprises further  
2 instructions executable by the processor to extract from the alert the information about the  
3 alert.

1                   13.     The device of claim 1, wherein the communication network is selected  
2 from a group consisting of a radio-frequency transmission, a telephone network, a cable  
3 television distribution network, the Internet, a fiber-optic network, a high-speed data network,  
4 a wireless network, and a microwave network.

1                   14.     The device of claim 1, wherein the communication network is a  
2 plurality of communication networks and wherein, for a particular distribution address, the  
3 device is configured to select the most appropriate communication network via which to  
4 transmit the alert information to the particular distribution address.

1                   15.     In a relationship between a telecommunication provider and a plurality  
2 of subscribers, a method for determining an appropriate set of addresses to which to distribute  
3 an alert, the method comprising:

4                   maintaining a directory of alert gateways, the directory comprising a plurality  
5 of directory entries, each directory entry being associated with a particular alert gateway and  
6 comprising at least one gateway characteristic associated with that alert gateway, the gateway  
7 characteristic including information to enable the alert distribution device to determine  
8 whether a given alert should be transmitted to the alert gateway;

9                   maintaining a distribution address associated with each of the alert gateways,  
10 the distribution address for a particular alert gateway providing sufficient identifying  
11 information about that alert gateway to allow an alert to be transmitted to the alert gateway;

12                  associating the at least one gateway characteristic for a particular alert  
13 gateway with the distribution address for that particular alert gateway;

14                  receiving an alert, the alert having associated information about the alert;

15 identifying, based on the information about the alert, a set of selection criteria  
16 for determining which of the plurality of alert gateways should receive the alert;  
17 searching the directory for at least one directory entry comprising a gateway  
18 characteristic corresponding to the identified selection criteria; and  
19 identifying, based on the search, a set of at least one distribution address that  
20 should receive the alert, each member of the set of distribution addresses being associated  
21 with a directory entry comprising a gateway characteristic that corresponds to the identified  
22 selection criteria.

1                   17. The method of claim 16, wherein the information about the alert  
2 comprises geographic information about a geographic area to which the alert pertains, such  
3 that subscribers outside the geographic area would be relatively unlikely to be interested in  
4 receiving the alert.

1                   21. The method of claim 15, wherein the at least one gateway  
2 characteristic associated with an alert gateway comprises information selected from the group  
3 consisting of the area code in which the alert gateway is located, the ZIP code in which the  
4 alert gateway is located, the latitude and longitude coordinates of the alert gateway, the  
5 Global Positioning System coordinates of the alert gateway, demographic information about a  
6 subscriber associated with the alert gateway, and information about subscriber preferences  
7 held by a subscriber associated with the alert gateway.

1                   22.     The method of claim 15, wherein the alert comprises urgent public  
2 information.

1                   23.     The method of claim 8, wherein the urgent public information is  
2 selected from a group consisting of an Emergency Alert System transmission, an Amber  
3 Alert, a severe weather notification, and a Homeland Security Advisory notification.

1                   24.     The method of claim 15, wherein the information about the alert is  
2 incorporated within the alert.

1                   25.     The method of claim 15, wherein the alert information about the alert  
2 is additional to the alert.

1                   26.     The method of claim 15, further comprising extracting from the alert  
2 the information about the alert.

1                   27.     In a relationship between a telecommunication provider and a plurality  
2 of subscribers, a system for distributing an alert to an appropriate set of subscribers, the  
3 system comprising:

4                   a plurality of alert gateways configured to receive an alert, each of the  
5 plurality of alert gateways being associated with at least one subscriber;

6                   a communication network in communication with the plurality of alert  
7 gateways; and

8                   an alert distribution device in communication with the communication  
9 network, the alert distribution device comprising:

10                  at least one interface member in communication with the network;

11                  a processor in communication with the at least one interface member;

12                  and

13                  a storage medium in communication with the processor, the storage  
14 medium comprising instructions executable by the processor to:

15                  maintain a directory of alert gateways, the directory comprising  
16                  a plurality of directory entries, each directory entry being associated with a  
17                  particular alert gateway and comprising at least one gateway characteristic  
18                  associated with that alert gateway, the gateway characteristic including

19 information to enable the alert distribution device to determine whether a  
20 given alert should be transmitted to the alert gateway;

21 maintain a distribution address associated with each of the alert  
22 gateways, the distribution address for a particular alert gateway providing  
23 sufficient identifying information about that alert gateway to allow an alert to  
24 be transmitted to the alert gateway;

25 associate the at least one gateway characteristic for a particular  
26 alert gateway with the distribution address for that particular alert gateway;

27 receive an alert via the at least one interface member, the alert  
28 having associated information about the alert;

29 identify, based on the information about the alert, a set of  
30 selection criteria for determining which of the plurality of alert gateways  
31 should receive the alert;

32 search the directory for at least one directory entry comprising  
33 a gateway characteristic corresponding to the identified selection criteria;

34 identify, based on the search, a set of at least one distribution  
35 address that should receive the alert, each member of the set of distribution  
36 addresses being associated with a directory entry comprising a gateway  
37 characteristic that corresponds to the identified selection criteria; and

38 using the at least one interface member, transmit the alert via  
39 the network to a set of alert gateways, each member of the set of alert  
40 gateways being associated with a member of the set of distribution addresses.

1 28. The system of claim 27, wherein the at least one gateway characteristic  
2 associated with each of the alert gateways comprises information about the geographic  
3 location of the alert gateway.

1 29. The system of claim 28, wherein the information about the alert  
2 comprises geographic information about a geographic area to which the alert pertains, such  
3 that subscribers outside the geographic area would be relatively unlikely to be interested in  
4 receiving the alert.

1 30. The system of claim 27, wherein the directory entry for each alert  
2 gateway comprises information about a distribution address for that alert gateway, and

3 wherein maintaining a distribution address associated with each of the alert gateways  
4 comprises maintaining the information about the distribution address.

1                   31.       The system of claim 27, wherein the storage medium comprises a first  
2 database, the first database comprising the directory of alert gateways.

1                   32.       The system of claim 31, wherein storage medium comprises a second  
2 database, the second database comprising the distribution addresses associated with each of  
3 the alert gateways.

1                   33.       The system of claim 27, wherein the at least one gateway characteristic  
2 associated with an alert gateway comprises information selected from the group consisting of  
3 the area code in which the alert gateway is located, the ZIP code in which the alert gateway is  
4 located, the latitude and longitude coordinates of the alert gateway, the Global Positioning  
5 System coordinates of the alert gateway, demographic information about a subscriber  
6 associated with the alert gateway, and information about subscriber preferences held by a  
7 subscriber associated with the alert gateway.

1                   34.       The system of claim 27, wherein at least one of the plurality of alert  
2 gateways is incorporated within a network interface device.

1                   35.       The system of claim 27, wherein at least one of the plurality of alert  
2 gateways is in communication with a network interface device.

1                   36.       The system of claim 27, wherein the alert comprises urgent public  
2 information.

1                   37.       The system of claim 36, wherein the urgent public information is  
2 selected from a group consisting of an Emergency Alert System transmission, an Amber  
3 Alert, a severe weather notification, and a Homeland Security Advisory notification.

1                   38.       The system of claim 27, wherein the information about the alert is  
2 incorporated within the alert.

1                   39.       The system of claim 27, wherein the alert information about the alert is  
2 additional to the alert.

1                   40.     The system of claim 27, wherein the storage medium comprises further  
2 instructions executable by the processor to extract from the alert the information about the  
3 alert.

1                   41.     The system of claim 27, wherein the communication network is  
2 selected from a group consisting of a radio-frequency transmission, a telephone network, a  
3 cable television distribution network, the Internet, a fiber-optic network, a high-speed data  
4 network, a wireless network, and a microwave network.

1                   42.     The system of claim 27, wherein the communication network is a  
2 plurality of communication networks and wherein, for a particular distribution address, the  
3 alert distribution device is configured to select the most appropriate communication network  
4 via which to transmit the alert information to the particular distribution address.

5                   43.     In a relationship between a telecommunication provider and a plurality  
6 of subscribers, a system for distributing an alert to an appropriate set of subscribers, the  
7 system comprising:

8                   a plurality of alert gateways configured to receive an alert, each of the  
9 plurality of alert gateways having a geographic location, and each of the plurality of alert  
10 gateways being associated with at least one subscriber;

11                  a network configured to provide communication with the plurality of alert  
12 gateways; and

13                  an alert distribution device comprising:

14                  at least one interface member in communication with the network;

15                  a processor in communication with the at least one interface member;

16                  and

17                  a storage medium in communication with the processor, the storage  
18 medium comprising instructions executable by the processor to:

19                  maintain a database of alert gateways, the database comprising  
20 a plurality of database records, each database record being associated with an  
21 alert gateway and comprising location information about the geographic  
22 location of that alert gateway;

23                  maintain a distribution address associated with each of the alert  
24 gateways, the distribution address for an alert gateway providing sufficient

25 identifying information about that alert gateway to allow an alert to be  
26 transmitted to the alert gateway;

27 associate the at least one gateway characteristic for a particular  
28 alert gateway with the distribution address for that particular alert gateway;

29 receive an alert via the at least one interface member, the alert  
30 comprising information about a geographic area to which the alert pertains,  
31 such that subscribers outside the geographic area would be relatively unlikely  
32 to be interested in receiving the alert;

33 identify, based on the information about the geographic area to  
34 which the alert pertains, a set of geographic criteria for determining which of  
35 the plurality of alert gateways should receive the alert;

36 search the database for at least one directory entry comprising  
37 location information meeting the set of geographic criteria;

38 identify, based on the search, a set of at least one distribution  
39 address that should receive the alert, each of the set of distribution addresses  
40 associated with a directory entry comprising location information meeting the  
41 set of geographic criteria; and

42 using the at least one interface member, transmit the alert via  
43 the network to a set of alert gateways, each member of the set of alert  
44 gateways being associated with a member of the set of distribution addresses.

1 44. The system of claim 43, wherein at least one of the plurality of alert  
2 gateways is incorporated within a network interface device.

1 45. The system of claim 43, wherein at least one of the plurality of alert  
2 gateways is in communication with a network interface device.

1 46. The system of claim 43, wherein the alert comprises urgent public  
2 information.

1 47. The system of claim 46, wherein the urgent public information is  
2 selected from a group consisting of an Emergency Alert System transmission, an Amber  
3 Alert, a severe weather notification, and a Homeland Security Advisory notification.

1 48. The system of claim 43, wherein the location information is selected  
2 from the group consisting of the area code in which the alert gateway is located, the ZIP code

3 in which the alert gateway is located, the latitude and longitude coordinates of the alert  
4 gateway, and the Global Positioning System coordinates of the alert gateway.

1 49. In a relationship between a telecommunication provider and a plurality  
2 of subscribers, a method for distributing an alert to an appropriate set of subscribers, the  
3 method comprising:

4 maintaining a database of alert gateways, the database comprising a plurality  
5 of database records, each database record being associated with an alert gateway and  
6 comprising location information about the geographic location of that alert gateway;

7 maintaining a distribution address associated with each of the alert gateways,  
8 the distribution address for an alert gateway providing sufficient identifying information  
9 about that alert gateway to allow an alert to be transmitted to the alert gateway;

10 associating the at least one gateway characteristic for a particular alert  
11 gateway with the distribution address for that particular alert gateway;

12 receiving an alert via the at least one interface member, the alert comprising  
13 information about a geographic area to which the alert pertains, such that subscribers outside  
14 the geographic area would be relatively unlikely to be interested in receiving the alert;

15 identifying, based on the information about the geographic area to which the  
16 alert pertains, a set of geographic criteria for determining which of the plurality of alert  
17 gateways should receive the alert;

18 searching the database for at least one directory entry comprising location  
19 information meeting the set of geographic criteria;

20 identifying, based on the search, a set of at least one distribution address that  
21 should receive the alert, each member of the set of distribution addresses being associated  
22 with a directory entry comprising location information meeting the set of geographic criteria;  
23 and

24 transmitting the alert to a set of alert gateways, each member of the set of alert  
25 gateways being associated with a member of the set of distribution addresses.

1 50. The method of claim 49, wherein at least one of the plurality of alert  
2 gateways is incorporated within a network interface device.

1 51. The method of claim 49, wherein at least one of the plurality of alert  
2 gateways is in communication with a network interface device.

1                   52.     The method of claim 49, wherein the location information is selected  
2     from the group consisting of the area code in which the alert gateway is located, the ZIP code  
3     in which the alert gateway is located, the latitude and longitude coordinates of the alert  
4     gateway, and the Global Positioning System coordinates of the alert gateway.

1                   53.     The method of claim 49, wherein the alert comprises urgent public  
2     information.

1                   54.     The method of claim 53, wherein the urgent public information is  
2     selected from a group consisting of an Emergency Alert System transmission, an Amber  
3     Alert, a severe weather notification, and a Homeland Security Advisory notification.